Enforcement procedures also impede high-technology imports. First, if technical standards are not compiled in a readily accessible manner, the time and cost of learning them may discourage companies from attempting to penetrate the market. Second, the standards may be more stringently enforced on imports than on domestic products. Third, obstacles may be placed in the way of a company seeking technical certification--for example, by requiring it to repeat all its testing within the importing country. In the case of drugs, where tests take years, this requirement can be prohibitive. Also, repeating tests discriminates against small firms, which can less easily bear the costs. In some cases, companies have been required to show that each batch of products meets the technical standards, rather than doing the tests once and then certifying that subsequent production is according to specification.

Other Market Barriers

Two other nontariff barriers are used by governments to restrict access to high-technology markets: import licenses and performance requirements. 20/ Import licenses are used throughout the developing world for a wide variety of purposes: restricting imports of luxury goods, conserving foreign currency reserves, and protecting or encouraging local industries.

Performance requirements are not directed against importers per se, but are imposed on firms that want to invest in a country. They stipulate things the entrant must do in order to be allowed to set up shop, such as exporting a certain amount of its output or using a certain proportion of local materials.

INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights are of great concern to high-technology industries. The United States is laboratory to the world, and high-technology industries perform a large fraction of this task. The major areas of concern are product and process patents (including extending such coverage to pharmaceuticals and biotechnology), copyrights (especially for computer software), and trademark law.

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20. Intellectual property rights may also be used to limit access; they are discussed in the following section.

U.S. companies have suffered disproportionately from the lack of rigorous and uniform international standards for intellectual property rights. Foreign manufacturers have been able to mimic a wide range of U.S. name-brand goods, and even invade the U.S. market with them. In some countries, manufacturers licensed to provide U.S. products for the local market--for example, pharmaceuticals--export them to the U.S. market at lower prices. Because they do not have to recapture R&D or marketing costs, these producers can sell them to U.S. consumers as generic drugs at a fraction of the prices charged by name-brand producers. 21/ The U.S. International Trade Commission estimates that infringement of intellectual property worldwide cost $8 billion to $20 billion in lost U.S. sales. 22/

The less-developed world takes a different view of the issue, however, and even among industrialized countries there have been differences of opinion. Developing countries view weak intellectual property right laws as a vehicle for technology transfer. They argue that even major technological developments are properly viewed as elaborations of past contributions, which are the property of society as a whole. They do not assign as much weight to individual contributions as do industrialized countries. Moreover, they do not have a great deal of intellectual property to lose. They note that when the United States was a developing country, it did not recognize other countries' copyright restrictions. Only at the beginning of this century, when it had become one of the major industrial powers, did it agree to abide by other countries' copyrights. Furthermore, the United States still does not adhere to the Berne Convention, the major international institution regulating intellectual property rights, in part because the convention gives authors too much control over their works. 23/

A recent bureaucratic struggle in Japan illustrates some of the frictions within the industrialized world regarding intellectual property rights, and the fragility of even the current level of protection. MITI wanted to change the treatment accorded computer software from straightforward copyright to a hybrid form of protection that would be administered by

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21. Of course, many generic drugs are not produced this way, but are simply standard chemical compounds sold at low markups.

22. International Trade Commission, *The Effects of Foreign Product Counterfeiting on U.S. Industry* (January 1984), p. xiv.

23. Recently the Administration has signaled its intent to join Berne. See *Report of the President's Commission on Industrial Competitiveness*, Appendix D. A Special Report on the Protection of Intellectual Property Rights (December 1984), p. 335.

MITI. This would have substantially lowered the current standard of protection, and would also have given MITI the authority to require compulsory licensing should it deem this in the national interest. Fortunately for U.S. computer software companies, the Ministry of Education was successful in its attempts to retain control of the copyrighting function.

The problems faced by U.S. high-technology firms in the newly industrializing countries are legion. Mexico and Brazil limit process patents on some industrial processes. In South Korea and Taiwan, patent law does not cover chemicals or pharmaceuticals. Further, in South Korea, computer software cannot yet be copyrighted, although such a law is currently being negotiated with the United States. In most of these countries, new technologies, such as biotechnology and satellite communications, are not covered by law.

A related issue, that of counterfeiting, is much less divisive than the conflicts over patents and copyrights. While not all governments are willing or able to devote a lot of resources to combating counterfeiting, many recognize that it should not be tolerated. Patent and copyright policies, on the other hand, involve more complex trade-offs between development needs and individual rights. The Administration has been trying through bilateral negotiations to encourage countries with the most active counterfeiting industries to put a stop to them. Its biggest success has been the recent anticounterfeiting law in Taiwan, the country that has led in the unauthorized duplication of U.S. goods. Whether enforcement of the law will be satisfactory to U.S. interests remains to be seen.

BARGAINING POSITIONS IN THE URUGUAY ROUND

While the United States imports high-technology goods from or exports them to virtually every other nation, this trade is predominantly with Western Europe, Japan, and some newly industrializing countries. Japan heads the list in most categories, both as buyer and seller. In many cases, however, the most vexing trade problems are not with major trading partners but with developing countries, especially in issues of intellectual property rights.

Japan

Japan is second to Canada as an importer of U.S. high-technology goods, even though it maintains a net export surplus in them. In 1985, it bought $5.1 billion worth of U.S. high-technology goods and sold $12 billion worth of its own high-technology goods to the United States.

Japan's position as a high-technology exporter is likely to make it a reluctant participant in the expansion of GATT in some of these areas. By and large, it has benefited from the practices that are of concern to the United States: Japanese targeting of high-technology industries has often, though not always, proved successful; and its high-technology industries benefit from nontariff barriers. On the other hand, given their drive to improve their software industry, and their success in biotechnology, the Japanese may have acquired an interest in protecting intellectual property rights that they did not display during the Tokyo Round.

Recent U.S. experience in negotiating the semiconductor accord with Japan illustrates the difficulty GATT may face in breaking new ground on targeting and NTBs. Japanese penetration of the U.S. semiconductor memory market led several U.S. semiconductor manufacturers and the U.S. government to begin antidumping proceedings against the Japanese semiconductor exporters. Faced with threats of antidumping duties, the Japanese government finally agreed to have Japanese companies sell semiconductor memories at "fair market value" both in the United States and in third markets, and to encourage domestic consumers to buy semiconductors from U.S.-based companies so as to increase the U.S. share of the Japanese market. Japanese companies complied with the provisions forbidding dumping in the United States (the aspect of the agreement the U.S. government could most easily enforce), but as of March 1987, MITI had been unable or unwilling to make them sell at similar prices in third markets or to open the domestic market further to U.S. companies. Consequently the U.S. government imposed duties on several dozen Japanese imports. The Japanese responded with concern, and trade relations deteriorated. Considering the leverage the U.S. government had over Japan in this case, the portents for GATT are not favorable.

It is of interest that the U.S.-Japan semiconductor accord has been challenged by the EC under GATT. The EC argues that the accord cartelizes the world semiconductor market. (Between them, the United States and Japan produce upward of 75 percent of world semiconductor output.) The EC also claims that the accord gives U.S. semiconductors preference in the Japanese market. This challenge shows how unsatisfactory bilateral solutions can be; no matter how well they may address immediate problems, they ignore far-reaching multilateral implications.

Recently the Japanese government has made clear its intention to move into two new high-technology areas--communications satellites and jet fighters. If past experience is any guide, substantial Japanese technological success in these areas may be followed by the disappearance of the

Japanese market for U.S. satellites and jet fighters. In some sense, the ability of GATT to open the Japanese market to foreign high-technology goods will be the touchstone of its ability to broaden access to markets; without success in this case, any other GATT initiative will have missed the central issue.

Newly Industrializing Countries

It is difficult to generalize about trade relations with a group as heterogeneous as the newly industrializing countries (defined for the purposes of this discussion to include Mexico, Brazil, South Korea, Taiwan, Hong Kong, and Singapore). In 1985, the United States had a $5 billion high-technology trade deficit with these seven countries. To a large extent, this trade imbalance results from the small internal markets in these countries. Very often U.S. exports to these countries are goods undergoing production, to be reexported to the United States or some other country for finishing and sale. The level of U.S. exports to these countries is also limited because of the international debts owed by Mexico and Brazil, which are obliged to restrict imports as part of the austerity measures imposed on them by the international banking community, with the consent of U.S. authorities. Nevertheless, these countries employ a wide range of government policies to manipulate high-technology trade, including nontariff barriers and the limited protection given intellectual property rights.

Developing countries have varying reasons for keeping imports out. Some, in their efforts to imitate the Japanese industrial success, are beginning to target specific industries as "strategic" to their economic development. Among other techniques, they use nontariff barriers to restrict imports so as to guarantee the targeted industry a market for its output. Other countries employ the older import substitution strategy, which also requires keeping foreign products out for the sake of industrial development. In other cases, imports are kept out as part of austerity programs designed to help relieve foreign debt problems. Whatever their reasons, a large number of these countries have nontariff barriers: according to one survey, 59 percent of upper-middle-income developing countries have government import controls on all or a large number of products. 24/

24. J.M. Finger and Andrzej Olechowski, "Trade Barriers: Who Does What to Whom" (June 1986, processed).

Many newly industrializing countries use investment restraints that systematically discriminate against foreign investors. These restraints can range from a total ban on direct foreign investment in certain industries to local majority ownership requirements. There may also be local content regulations, export requirements, and/or restrictions on repatriation of profits. To a large extent, these regulations stem from the belief that foreign investors often did not act in the best interests of the host nation. They are seen as using transfer pricing, foreign sourcing of inputs, and profiteering to extract wealth without delivering economic development in return. 25/

The United States and other industrialized countries have proposed that discussion of investment restraints be included in the Uruguay Round. The U.S. position has been considerably weakened by its recent response to Fujitsu's attempted purchase of the Fairchild Semiconductor company. Although the Administration took no action, its very publicized deliberations caused Fujitsu to withdraw the offer.

Efforts to eliminate nontariff barriers within the GATT framework will encounter resistance for the reasons mentioned above. A more effective approach might be within a bilateral context of mutual concessions and progressive liberalization. Governments may be more willing to lower their barriers to U.S. imports selectively than they would be to lower barriers to all imports if the latter course meant being flooded by imports from Japan, with which many of these countries already have trade deficits. For instance, Taiwan already gives preferences in import licenses to U.S. goods over Japanese goods. Since U.S. high technology imports from this area exceed U.S. exports to the region, bilateral reduction would be in the U.S. interest. But bilateral arrangements would mean moving away from the most-favored-nation system of trading, which has historically been a principle of U.S. trade policy.

Another major issue facing the newly industrializing countries is whether they are ready for graduation from their special status in GATT. Their favorable high-technology trade balance has come from trade with the industrialized world, where they enjoy some benefit from the generalized system of preferences. 26/ While U.S. pressure is forcing individual coun-

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25. Whether or not these allegations are true is not completely relevant, since they are perceived as true in much of the underdeveloped world and, to that extent, influence the policies of the governments.

26. See Chapter II for a fuller discussion.

tries to bring their conduct into line with the practices of industrialized nations, these efforts are on a country-by-country, issue-by-issue, sometimes industry-by-industry basis. It is not in the U.S. interest to exhaust its good will (and trade staff) in negotiating on a piecemeal basis; consequently, the United States and other industrialized countries may press this issue with the newly industrializing countries. It will not be easy for those countries to make such a change. In many cases their current industrial policies are part of complex domestic political compromises and represent their only perceived avenue of growth.

The European Community

Substantial expansion of the GATT into the area of subsidies, government procurement, and other nontariff barriers would present a major challenge to the EC's high-technology programs. The Europeans view themselves as falling behind the United States and Japan in the race for new markets. Like Japan and the United States, the EC has a highly trained work force of engineers and technicians, and the research infrastructure needed by these industries. The Europeans feel that their competitors have enjoyed special advantages--the United States from its massive military and space effort, and Japan from its protected domestic market. While the EC has imposed restrictions of its own on high-technology trade, it has allowed U.S. high-technology firms to operate freely there. To keep from falling farther behind, the Europeans feel they need to imitate U.S. development policy and provide additional government stimulus for technological development.

To this end, the EC has embarked upon communitywide research programs rather than continue national subsidization of splintered industries and markets. These programs include Airbus, the European Space Agency, the European Strategic Program for Research into Technology (ESPRIT), and the European Research Coordinating Agency (EUREKA). These programs enjoy a substantial degree of government subsidy and direction. The French and British governments have already approved $1.7 billion for development of the next generation of Airbus. As of the end of May 1987, the West German government was considering adding another $1 billion to that figure.[27] ESPRIT alone is projected to cost the 10 member governments $650 million over the next 10 years.[28] The vast majority of the Com-

27. Steven Greenhouse, "Airbus Offensive Threat," *New York Times*, May 28, 1987.

28. Pierre-Henri Laurent, "Renaissance Through Technology: The European Community Decision on ESPRIT," *Fletcher Forum* (Winter 1985), p. 159.

munity's R&D funds, however, are still allocated at the national level. 29/ Even here, however, member countries are moving away from the traditional "technology push" strategy of flagship electronic companies and protected national telecommunications markets. 30/ In some sense, the EC could be said to be moving away from individual protected markets and subsidized industries--which are not in the spirit of GATT--to regionally protected markets and subsidized industries, which are also not in the spirit of GATT.

The United States

While the United States has been in the forefront of the drive to expand GATT into new high-technology areas, it is likely to encounter problems of its own from such an expansion--principally with respect to government procurement and subsidies for R&D. In addition, as the U.S.-Japan semiconductor accord illustrates, U.S. impatience with the GATT may lead it into agreements that are themselves violations of the GATT.

In the United States, the "buy national" restrictions on federal procurement have been extended to goods far beyond the purlieu of national defense. Removing such restrictions on government purchases of nonmilitary goods both here and abroad should be in the interest of U.S. high-technology firms; they would gain in sales to foreign markets, while the losses in domestic markets would be suffered mainly by mature industries. In this sense, the choice facing the Congress is whether it wants to protect domestic textile, steel, and cement markets at the cost of foreign telecommunications equipment and aerospace markets. Government procurement of structures and nonmilitary equipment is on the order of $50 billion per year, much of it covered by "buy national" clauses. Such a large market would indeed tempt foreign competition.

If a GATT government procurement code was extended to military equipment, at either the prime contractor or subcontractor level, the tradeoff would be more difficult. The military has already expressed concern about foreign-sourced electronic components. Any move to increase foreign sourcing would exacerbate this concern.

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29. Klaus W. Grewlich, "EUREKA- eureka?" *Aussenpolitik* (1986), p. 27.

30. A.N. Duff, "EUREKA and the New Technology Policy of the European Community," *Policy Studies* (April 1986), p. 45.

U.S. government expenditures on defense and space R&D and procurement are often viewed by other governments as targeting exercises. The Department of Defense has been present at the creation of entire industries. In semiconductors, for example, federal agencies paid for most of the early R&D, trained a substantial part of the work force, bought the entire output, and occasionally provided the physical capital. 31/ Even now, the federal government is taking a series of actions--in response to perceived Japanese targeting--that could easily be described as targeting the U.S. semiconductor industry. The semiconductor accord guarantees a certain domestic floor price and some access to the Japanese market. A proposal exists, and is likely to be funded, that would form a government-subsidized consortium with the expressed purpose of coordinating private efforts to enhance the commercial manufacturing technology of the industry. Federal agencies continue to provide hundreds of millions of dollars for semiconductor research annually. Federal agencies have opposed foreign investment in the U.S. semiconductor industry. In addition, the Department of Defense is investigating ways to reduce use of foreign semiconductors in government-procured weapon systems.

Both relatively and absolutely, the U.S. government spends more on R&D in high-technology industries than any other industrialized country. Efforts to extend the GATT subsidy code to R&D are bound to run afoul of the government's current effort to enhance the commercial usefulness of federal research.

In the area of intellectual property rights, some European Community members have notified the GATT that they consider Section 337 of the U.S. Tariff Act of 1930 to be a trade barrier. Section 337 gives the federal government the authority to restrict imports that infringe on U.S. copyrights or patents if such imports harm a domestic industry. The EC's complaint is that if a U.S. firm violates a patent or copyright, it can be sued; whereas if a foreign firm is believed to be violating a patent or copyright it can be sued and also charged with a Section 337 violation, concurrently or sequentially. This double jeopardy is felt to discriminate against imports.

IMPLICATIONS OF LIBERALIZED TRADE

The Uruguay Round does not aim to produce major breakthroughs in the treatment of high-technology trade. As noted above, the bulk of high-tech-

31. Philip Webre, "Technological Progress and Productivity Growth in the U.S. Semiconductor Industry" (Ph.D. dissertation, American University, 1983), pp. 93-111.

nology trade is already covered by GATT. The hope, rather, is to reduce some of the frictions that beset trade in this field. If the negotiations were to reduce the nontariff barriers the way previous rounds reduced tariffs, they would greatly improve the international climate for high-technology trade. On the other hand, since U.S. high-technology companies already have some access to all major markets for their goods, even the most favorable outcome that can be realistically foreseen would bring only a marginal improvement in the high-technology balance of trade. A substantial opening of Japanese high-technology markets would indeed prove beneficial, but there is little in postwar Japanese commercial practice to encourage hope for such improvement.

A substantial reduction in nontariff barriers will be hard to achieve in the current round. Unlike tariffs, these have as much to do with intent as with practice. Efforts to open these markets will run counter to national policies in both developing and developed countries, with the likelihood that as one set of nontariff barriers is proscribed, others will be found to replace them. The major exception to this lies in the secular trend toward privatization of telephone and telegraph systems in Western Europe and Japan, which promises to lower the barriers to trade in telecommunications equipment in the aggregate. 32/

An area in which the Uruguay Round may make some substantial progress is that of intellectual property rights. A number of ineffectual organizations currently deal with intellectual property rights disputes, including the World Intellectual Property Organization, the Berne Convention, and the Universal Copyright Convention. Since intellectual property rights are part of the Uruguay Round's agenda, ways of integrating them will have to be found.

32. On the other hand, U.S. telecommunications-equipment exports to Japan have fallen since Nippon Telephone and Telegraph was privatized.

CHAPTER IV

AGRICULTURE

Governments throughout the world have for many years pursued agricultural policies that support farm prices and incomes. In deference to such policies, GATT has permitted the use of import quotas and export subsidies in agricultural trade. Recently, however, large increases in government farm budgets and the recognition that national farm policies in many countries have been a principal cause of the prolonged depression in world agricultural markets have spurred key national leaders to action. They have agreed, in principle, to negotiate reductions in national agricultural support levels and to change their domestic farm policies so as to make them more responsive to world market conditions.

These negotiations will have important consequences for world agriculture. If they stalemate, current tensions could easily escalate into a full-scale trade war in agriculture and possibly spill over into other sectors. In order to succeed, however, major changes in national farm programs may be required, probably involving lower overall support for prices and incomes. A major goal of the reforms--to reduce the production incentives incorporated in most farm programs, or alternatively to break the link between farm income support and production altogether--may require entirely new farm programs. Allowing market conditions to guide farm prices and output would benefit most countries greatly, but some farmers would be made worse off, at least in the near term. This applies most profoundly to farmers who cannot produce at competitive prices, but also for many farmers who currently gain from income supports and subsidies.

Short-term schemes to compensate injured farmers might be required for equity and political reasons. Adjustment costs could be lessened by phasing in any agreement over a long period of time, and by allowing each country flexibility in how long-run targets were met. Losses to farmers would also be less if all countries simultaneously opened their markets through a multilateral agreement. This approach would tend to increase export possibilities and raise world prices for many farm products.

Hopes are high that important agricultural policy reforms can be accomplished during the Uruguay Round. After repeated failures in past GATT negotiations, key national leaders have agreed, in principle, to reforms in their national farm programs that would reduce the impact of those programs on agricultural trade flows and prices.[1/] Negotiators will at-

1. This was stated in a May 13, 1987, communique from the Council of the Organization for Economic Cooperation and Development.

tempt not only to liberalize agricultural trade policies, but more fundamentally, to reduce the production incentives and consumption disincentives incorporated in the national farm programs; it is these that ultimately motivate most agricultural trade policies. Significant liberalization will also require that GATT's long-standing special treatment of agricultural policy be rescinded.

The major parties in these talks, which have already started, will be developed countries--particularly the United States, the European Community, Japan, Canada, and Australia--since they account for over two-thirds of worldwide agricultural trade. Several of these countries have already begun to reformulate their agricultural policies unilaterally, especially the United States. But farm policies in most countries are still out of step with world market conditions, and lack the flexibility to adjust quickly when market conditions change--especially when world prices fall.

RECENT TRENDS IN AGRICULTURAL TRADE

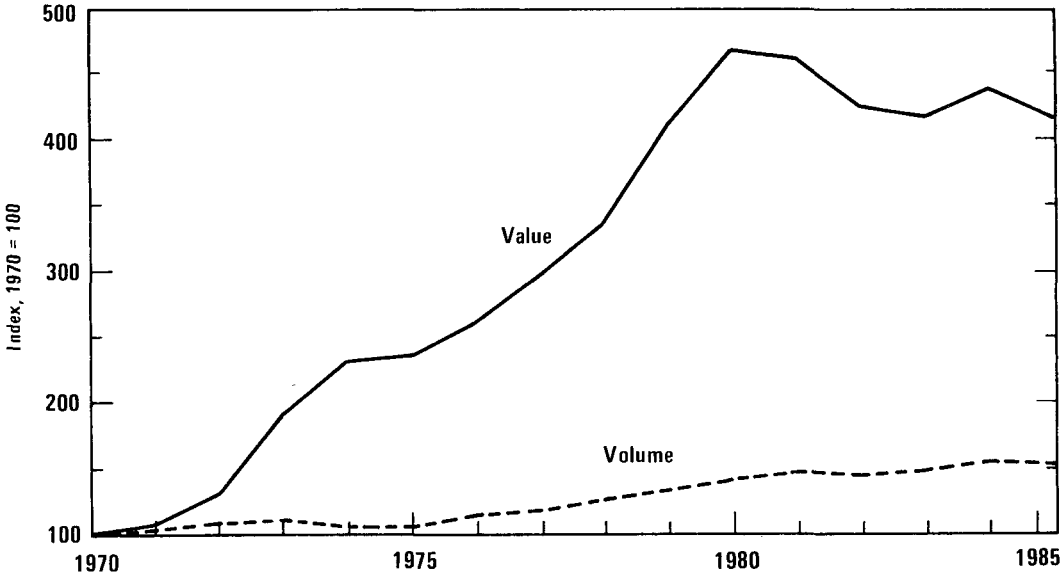
For the world as a whole, the supply of agricultural products has grown faster than the demand for them in recent years. The result has been to force down the prices of most agricultural commodities on world markets. China, the European Community, and to a lesser extent India have emerged as major exporters, while U.S. exports have declined substantially.

In value terms, world agricultural exports declined by about 11 percent between 1980 and 1985, compared with an increase of over 450 percent during the 1970s (see Figure 1). Most of the change in export values resulted from large swings in agricultural prices: unit values rose by almost 300 percent in the 1970s, while export volumes increased by 41 percent. 2/

2. Prices in world agricultural markets tend to be highly volatile in the short run because of rigidities in national markets and erratic weather conditions. Governments often stabilize or support domestic agricultural prices in an effort to insulate their farm economies from the "disruptive" effects of international markets. This process limits the number of people worldwide who actually buy and sell at world prices. Even when domestic prices are allowed to change, agricultural producers and consumers tend to respond slowly and weakly to new prices. Thus, when international market conditions vary, world prices must move substantially to induce a sufficient response in domestic markets to relieve market pressures.

   These same factors can prolong often extreme conditions in world markets by limiting adjustment in domestic markets. Over several years, producers and consumers--especially the former--can respond significantly to large and persistent changes in price. Once momentum is built up, however, it is often difficult to reverse. It can take a number of years for a large and protracted swing in world prices to bring about a meaningful turnaround in world market conditions.

Figure 1.
World Agricultural Exports



SOURCES: Congressional Budget Office; General Agreement on Tariffs and Trade, *International Trade 85-86.*

In the 1980s prices have fallen by about 18 percent, and export volumes increased only about 6 percent. Stockpiles of agricultural commodities, another indicator of weak market conditions, have increased significantly during the 1980s. 3/

3. The agricultural boom in the 1970s reflected increases in real per capita income (especially in developing countries), a prolonged real depreciation of the U.S. dollar, easy access to financial credit, and policy changes favoring agricultural imports by centrally planned countries. A reversal in these factors, together with farm policies in many countries that maintained production incentives even as world demand declined, led to the subsequent depression in world agricultural markets in the 1980s. Good weather in many key producing areas over this period, especially in Europe, also weakened markets. Another reversal in several of these factors, in particular the recent depreciation of the dollar and changes in several countries' farm policies, may over time improve agricultural trade conditions somewhat.

The Decline in U.S. Exports

World market shares of key agricultural producers have shifted in the 1980s, especially for the United States. The decline in the U.S. share of world markets has been especially large for wheat and coarse grain exports. The U.S. share of the world wheat market fell from about 45 percent in 1981 to about 30 percent in 1986, while its share in coarse grains--such as corn, barley, and sorghum--dropped from about 65 percent to about 44 percent (see Table 6). Australia and Argentina were the largest gainers of market share in wheat exports over this period, as were China and Western Europe in coarse grains.

The value of U.S. agricultural exports has fallen significantly in nominal terms over the last five years--from a record level of $43.3 billion in 1981 to just $26.1 billion in 1986 (see Table 7). This decline can be attributed almost equally to reductions in agricultural prices and to reduction in export volume. Major reductions in agricultural export values occurred for almost every important export product except animal products. Grains, which made up almost 45 percent of the total value of U.S. agricultural exports in 1981, contributed only about 26.5 percent by 1986. The United States has suffered not only from the stagnant world market for agricultural products, but it has also lost some of its share in world markets for almost every major commodity group. The United States, nevertheless, is still the world's largest exporter of agricultural products--predominantly exporting food grains such as wheat and rice, coarse grains, oilseeds and products, cotton, tobacco, and animal products.

The largest single purchaser of U.S. agricultural exports is Japan, although sales to the combined European Community exceed those to Japan (see Table 8). Other key markets for U.S. agricultural products include: East Asian countries such as South Korea and Taiwan; the Soviet Union and Eastern European countries; Latin America, especially Mexico; and Canada. Developed countries buy about half of all U.S. agricultural exports, while sales to developing countries contribute about another 40 percent. Sales to centrally planned economies have decreased in relative importance during the 1980s.

The Rise in U.S. Imports

While U.S. exports have fallen, U.S. imports have increased steadily during the 1980s (see Table 7). The chief agricultural products imported by the United States are: coffee and cocoa; animal products, including dairy

TABLE 6. WORLD MARKET SHARES FOR WHEAT AND COARSE GRAINS IN TRADE YEAR 1985/1986 (In millions of metric tons, shares in percent)

Country	Production	Trade	Trade as Percent of Production [a]	Share of World Trade 1980/1981	Share of World Trade 1985/1986
		Wheat			
World	499.0	84.9	17.0	---	---
Major Exporters					
United States	66.0	25.0	37.9	44.5	29.4
Canada	24.3	16.8	69.1	18.1	19.8
Australia	16.1	16.0	99.4	11.3	18.8
EC-12	71.7	15.6	21.8	16.7	18.4
Argentina	8.5	6.1	71.8	4.1	7.2
Major Importers					
USSR	78.1	15.7	17.1	17.0	18.5
China	85.8	6.6	7.1	14.7	7.8
Japan	0.9	5.5	85.9	6.2	6.5
		Coarse Grains			
World	844.6	83.4	9.9	---	---
Major Exporters					
United States	274.9	36.4	13.2	64.2	43.6
Argentina	17.1	9.7	56.7	13.2	11.6
EC-12	88.3	8.0	9.1	5.5	9.6
China	82.3	7.1	8.6	0.0	8.5
Canada	25.0	5.8	23.2	5.1	7.0
Major Importers					
Japan	0.4	21.5	98.2	17.2	25.8
USSR	100.0	13.5	12.1	21.8	16.2
EC-12	88.3	5.7	6.4	18.3	6.8

SOURCES: U.S. Department of Agriculture and Congressional Budget Office.

NOTE: A trade year for wheat covers activity between July and June. For example, trade year 1985/1986 covers the period from July 1985 through June 1986. A trade year for coarse grains is from October to September. Trade years are adjusted for different production seasons in the Northern and Southern Hemispheres.

a. Trade as a percent of production for exporters is the ratio of exports to production, and for importers the ratio of imports to total domestic utilization. Production is not adjusted for stock carryover. For example, allowing for stock carryover, Australia generally exports between 80 percent and 90 percent of its wheat production.

TABLE 7. U.S. EXPORTS AND IMPORTS OF AGRICULTURAL COMMODITIES, 1971-1986
(In billions of dollars)

	Exports [a]							Imports [b]				
Year	Total [c]	Coarse Grains	Food Grains	Oil Seeds and Products	Cotton	Tobacco	Animals and Products	Total [c]	Crops, Fruits, and Vegetables	Animals and Products	Coffee and Cocoa	Agricultural Trade Balance
1971	7.7	1.0	1.3	2.2	0.6	0.5	1.0	5.8	0.6	1.5	1.4	1.9
1972	9.4	1.5	1.8	2.4	0.5	0.7	1.1	6.5	0.7	1.8	1.5	2.9
1973	17.7	3.5	4.7	4.3	0.9	0.7	1.6	8.4	0.8	2.6	2.0	9.3
1974	21.9	4.6	5.4	5.7	1.3	0.8	1.8	10.2	0.8	2.2	2.1	11.7
1975	21.9	5.2	6.2	4.5	1.0	0.9	1.7	9.3	0.8	1.8	2.2	12.6
1976	23.0	6.0	4.7	5.1	1.0	0.9	2.4	11.0	0.9	2.3	3.5	12.0
1977	23.6	4.9	3.6	6.6	1.5	1.1	2.7	13.4	1.2	2.3	5.2	10.2
1978	29.4	5.9	5.5	8.2	1.7	1.4	3.0	14.8	1.5	3.1	5.4	14.6
1979	34.7	7.7	6.3	8.9	2.2	1.2	3.8	16.7	1.7	3.9	5.4	18.0
1980	41.2	9.8	7.9	9.4	2.9	1.3	3.8	17.4	1.6	3.8	5.1	23.9
1981	43.3	9.4	9.6	9.6	2.3	1.5	4.2	16.8	2.0	3.5	3.8	26.6
1982	36.6	6.4	7.9	9.1	2.0	1.5	3.9	15.3	2.3	3.7	3.6	21.3
1983	36.1	7.3	7.4	8.7	1.8	1.5	3.8	16.6	2.3	3.8	3.6	19.5
1984	37.8	8.1	7.5	8.4	2.4	1.5	4.2	19.3	3.1	4.1	4.4	18.5
1985	29.0	6.0	4.5	5.8	1.6	1.5	4.1	20.0	3.5	4.2	4.7	9.1
1986	26.1	3.1	3.8	6.5	0.7	1.2	4.5	21.1	3.5	4.5	5.6	5.0

SOURCES: U.S. Department of Agriculture and Congressional Budget Office.

NOTE: In most cases, the United States predominantly exports or imports a certain agricultural product, meaning that gross export and import values in this table also approximately represent net trade flows. This does not hold for the following commodities, where imports roughly offset exports: animals and products; fruits, nuts, and vegetables; and tobacco.

a. Exports are valued at the U.S. port of exportation.

b. Imports are valued at the foreign port, thus excluding international shipping costs and U.S. duties.

c. Totals include items not shown separately.